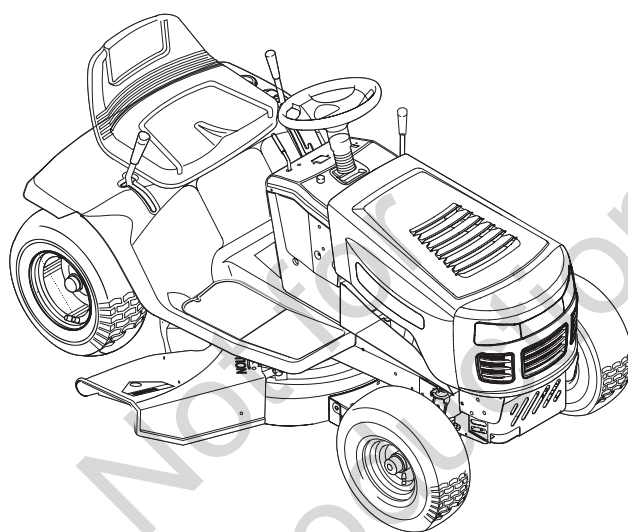


Parklander

BY  **MURRAY®**



Operator's Manual

Riding Mower Model MT60

Model No.

2690997

2690998

2690999

Description

Parklander, 14.5HP w/38" Mower Deck

Parklander, 15.5HP w/38" Mower Deck

Parklander, 15.5HP w/42" Mower Deck

Part No. 1752618
Revision 'C'

Thank you for purchasing this quality-built MURRAY PARKLANDER mower. We are pleased that you've placed your confidence in the MURRAY PARKLANDER brand. When operated and maintained according to the instructions in this manual, your MURRAY PARKLANDER mower will provide many years of dependable service.

This manual contains safety information to make you aware of the hazards and risks associated with mowers and how to avoid them. Because the manufacturer does not necessarily know all the applications this mower could be used for, it is important that you read and understand these instructions. **Save these original instructions for future reference.**

This mower requires final assembly before use. Refer to the *Assembly* section of this manual for instructions on final assembly procedures. Follow the instructions completely.

Where to Find Us

You never have to look far to find support and service for your mower. There are many authorized service dealers who provide quality service. You can also contact Customer Service by phone at 02 9584 7700, or on the Internet at www.murray.com or www.parklands.net.

Mower

Model Number _____

Serial Number _____

Engine

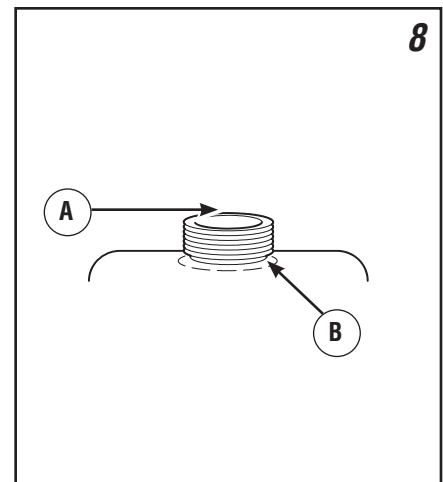
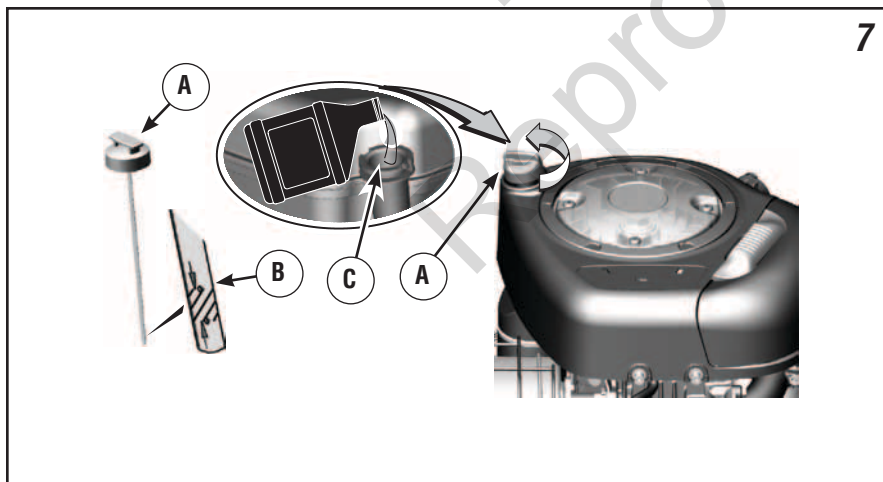
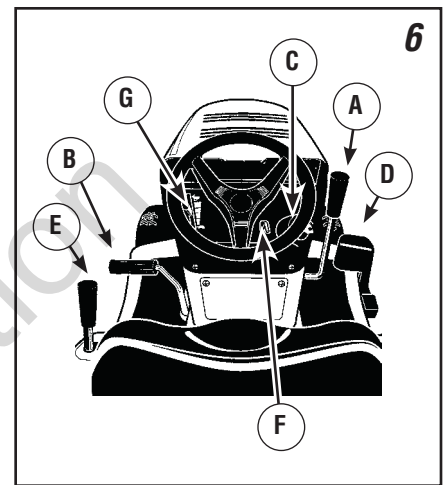
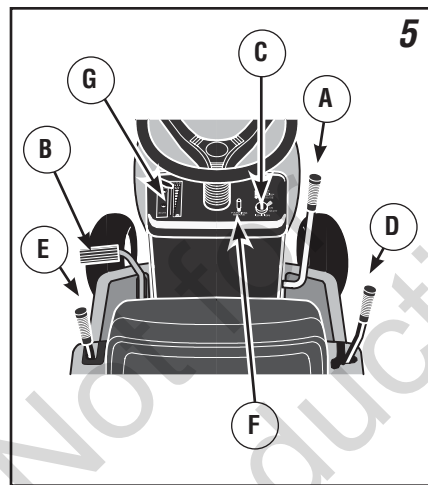
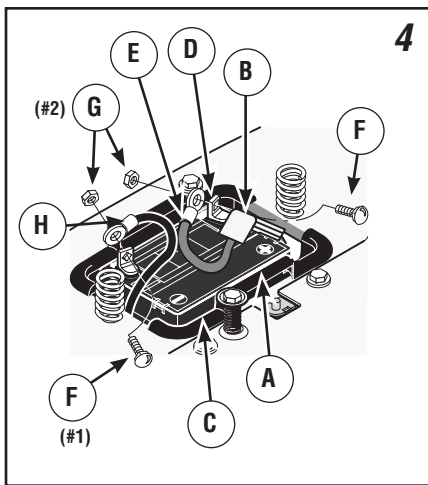
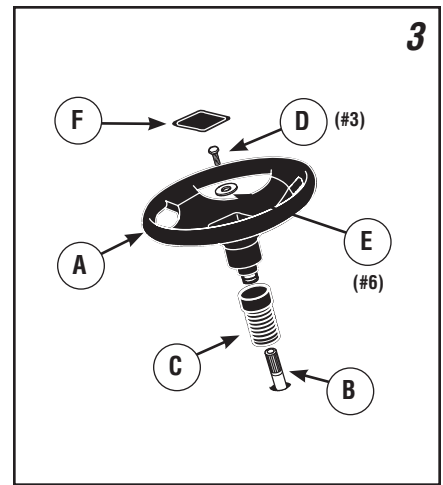
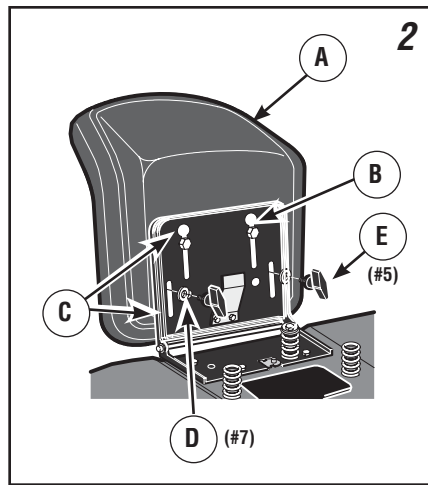
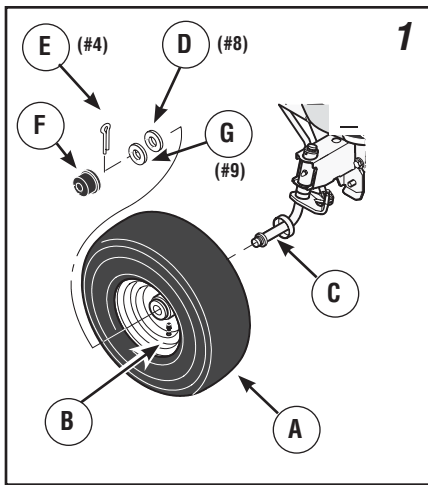
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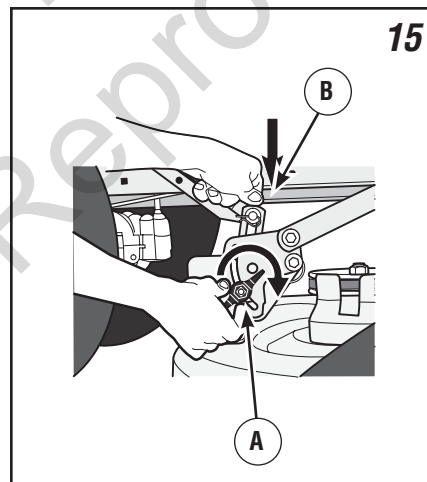
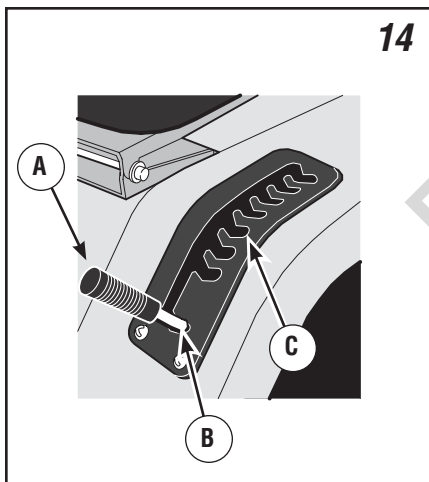
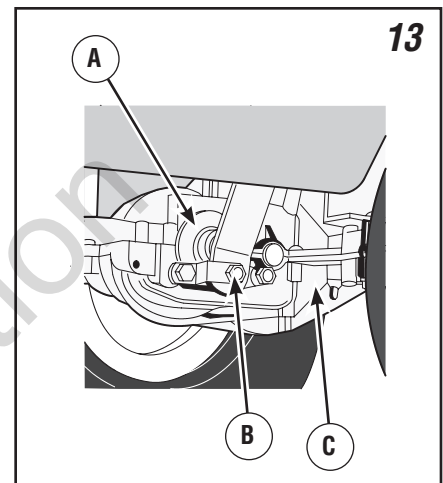
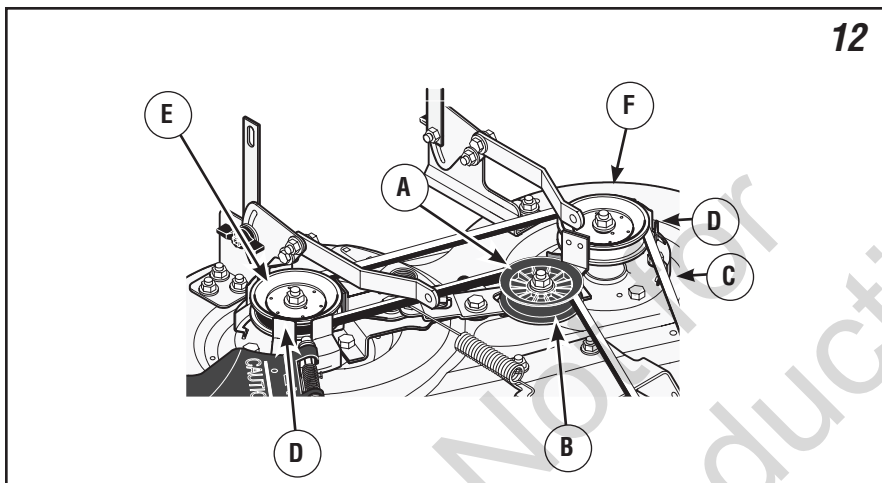
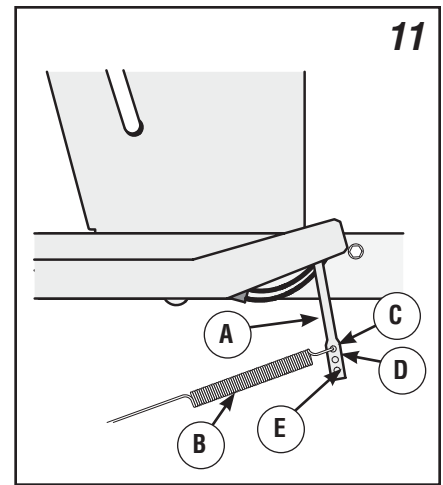
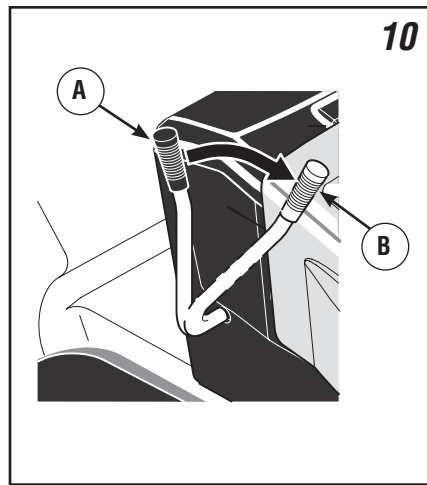
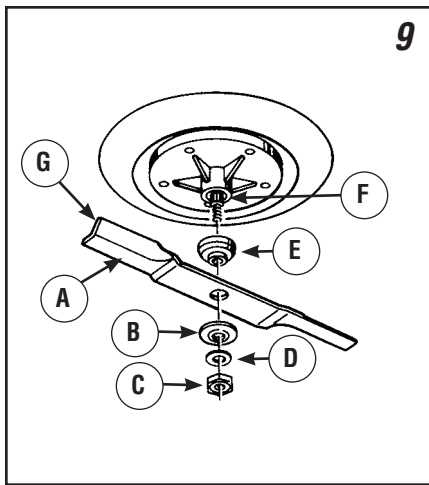
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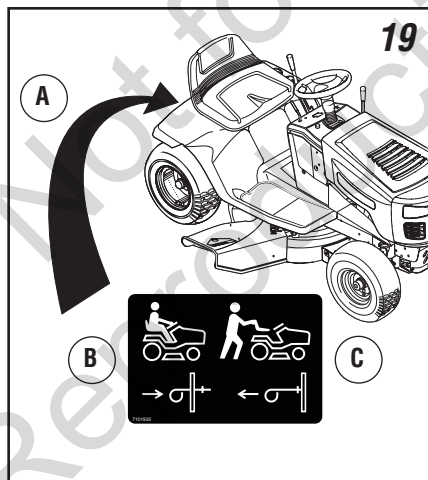
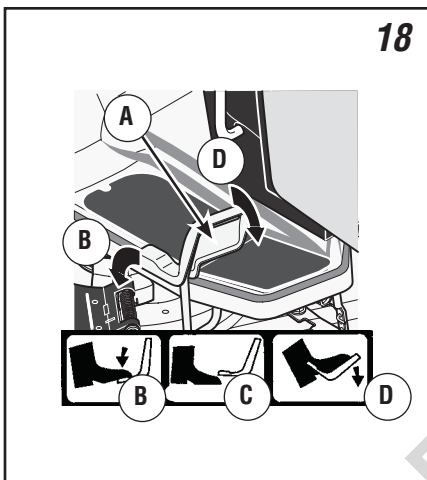
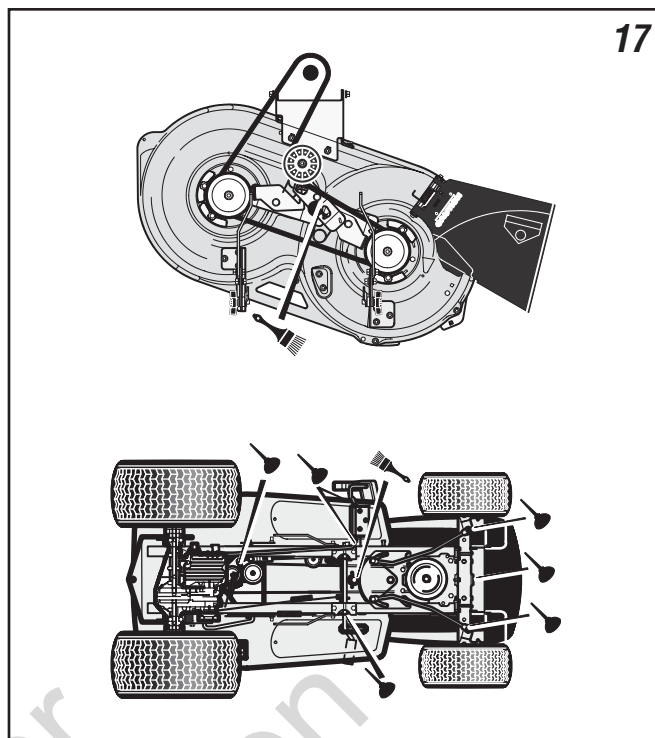
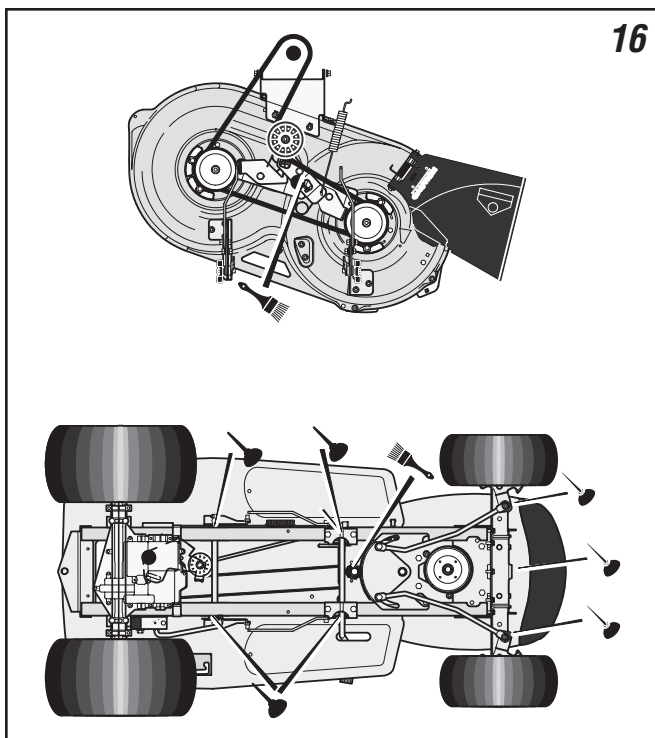
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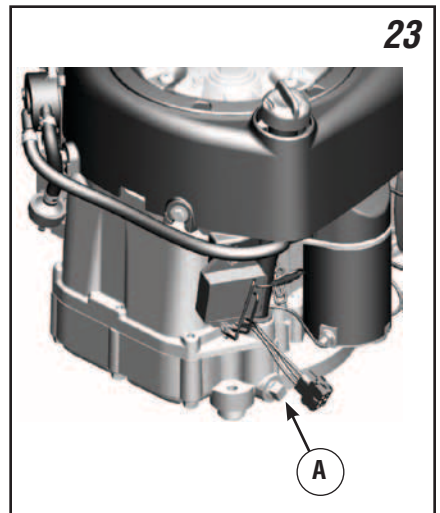
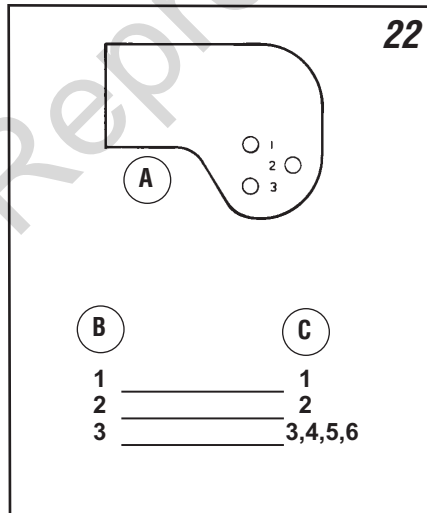
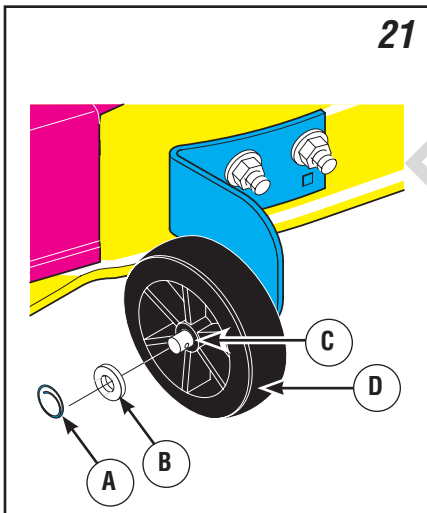
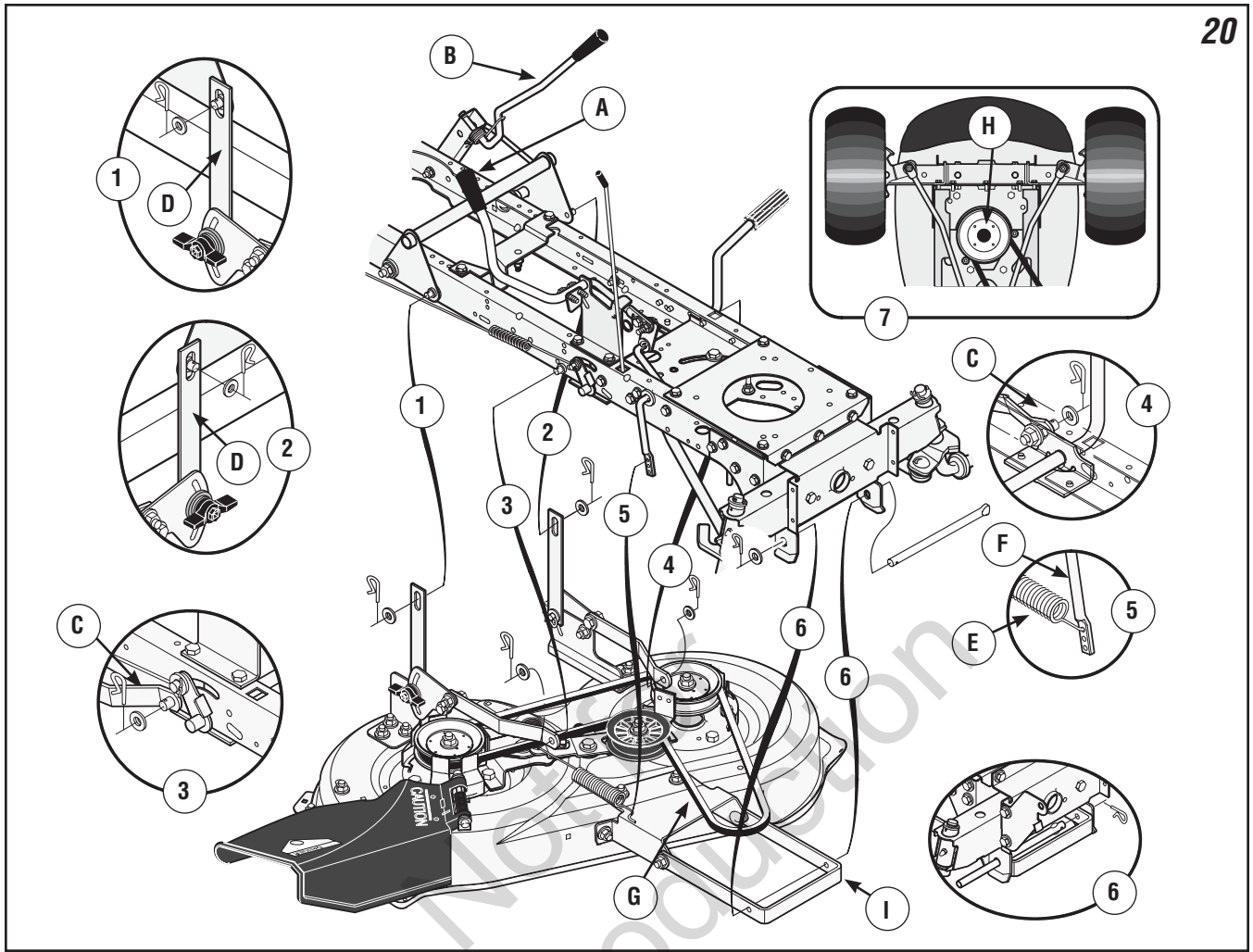
PARKLANDS POWER PRODUCTS
(AUST) PTY LTD.
106 BELMORE ROAD-RIVERWOOD
2210 NEW SOUTH WALES
AUSTRALIA

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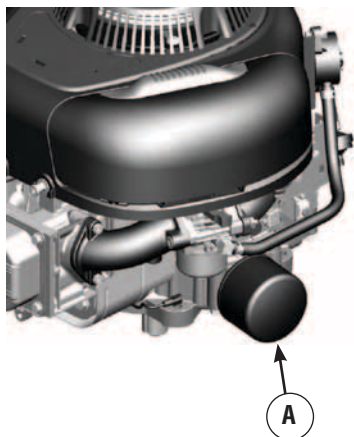




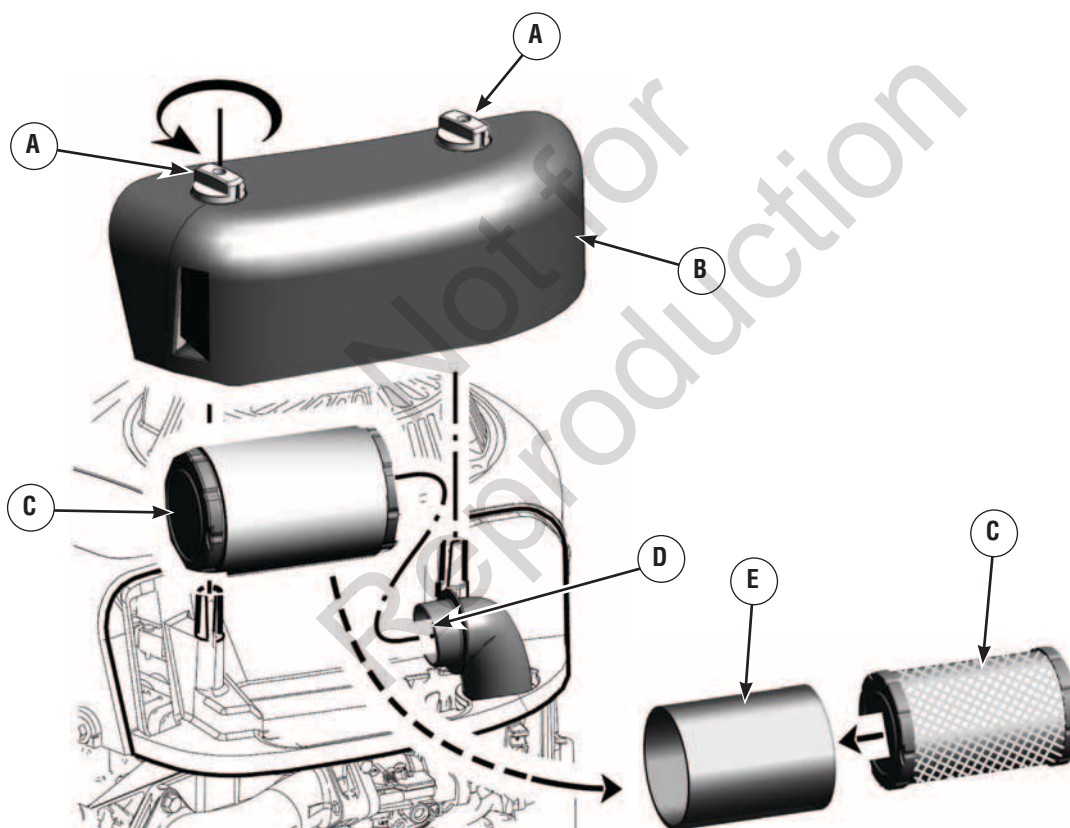




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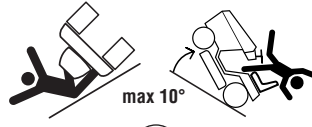
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B



C



D



E



F



G



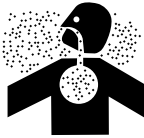
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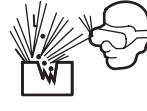
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27



A



B



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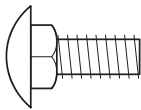


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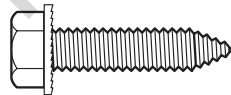
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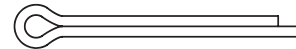
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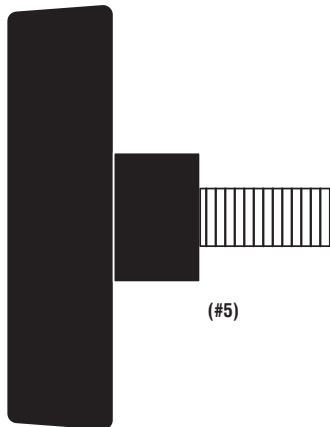
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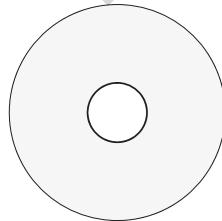
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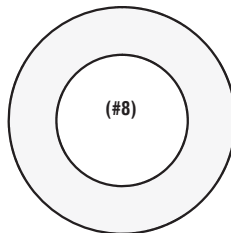
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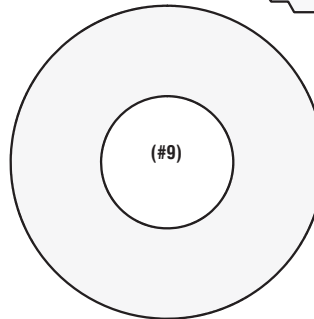
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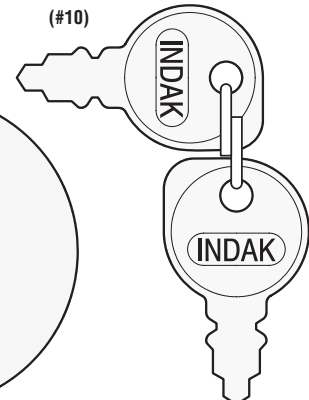
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Operator Safety

International Pictorials

IMPORTANT: The following pictorials are located on your unit or on literature supplied with the product. Before you operate the unit, learn and understand the purpose for each pictorial.

NOTE: Illustrations and pictorials begin on page 3.

Safety Warning Pictorials (Figure 26)

- A - SAFETY ALERT: Read Important Safety Information.*
- B - IMPORTANT: Read Owner's Manual Before Operating This Machine.*
- C - WARNING: Thrown Objects. Keep Bystanders Away. Read User Instructions Before Operating This Machine.*
- D - WARNING: Do Not Use This Machine On Slopes Greater Than 10 Degrees.*
- E - DANGER: Keep People, Especially Children, Away From Unit.*
- F - DANGER: Keep Feet And Hands Away From Rotating Blade.*
- G - DANGER: Keep Hands And Feet Away.*
- H - DANGER: Fire Hazard. Petrol And Yard Debris Are Flammable.*
- I - WARNING: Hot Surface.*
- J - DANGER: No Sparks, Flames or Smoking.*
- K - DANGER: Carbon Monoxide Hazard. The Engine Emits Poisonous Carbon Monoxide Gas.*
- L - WARNING: Use Caution When Connecting Or Disconnecting Accessories.*
- M - DANGER: Shield Eyes. Explosive Gases Can Cause Blindness Or Injury.*
- N - DANGER: Sulfuric Acid Can Cause Blindness Or Severe Burns.*
- O - DANGER: Flush Eyes With Water. Get Medical Help Fast.*

Control and Operating Pictorials (Figure 27)

- A - Engine Start*
- B - Lights*
- C - Stop / Off*
- D - Run / On*
- E - Brake*
- F - Parking Brake*
- G - Clutch*
- H - Slow*
- I - Fast*
- J - Choke*
- K - Oil*
- L - Blade Rotation Control*
- M - Fuel*

Responsibility of the Owner

Know your product: If you understand the unit and how the unit operates, you will get the best performance. As you read this manual, compare the illustrations to the unit. Learn the location and the function of the controls. To help prevent an accident, follow the operating instructions and the safety rules. Keep this manual for future reference.



WARNING: Look for this symbol to indicate important safety precautions. This symbol indicates: "Attention! Become Alert! Your Safety Is At Risk."



WARNING: This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death to the operator or bystanders.

The responsibility of the owner is to follow the instructions below.



Operating Safety

Power equipment is only as safe as the operator. If it is misused, or not properly maintained, it can be dangerous! Remember, you are responsible for your safety and that of those around you.

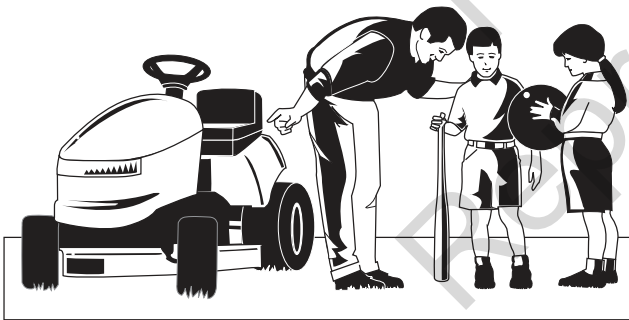
Use common sense, and think through what you are doing. If you are not sure that the task you are about to perform can be safely done with the equipment you have chosen, ask a professional: contact your local authorized dealer.

Read the Manual

The operator's manual contains important safety information you need to be aware of **BEFORE** you operate your unit as well as **DURING** operation.

Safe operating techniques, an explanation of the product's features and controls, and maintenance information is included to help you get the most out of your equipment investment.

Be sure to completely read the Safety Rules and Information found on the following pages. Also completely read the Operation section.



Children

Tragic accidents can occur with children. Do not allow them anywhere near the area of operation. Children are often attracted to the unit and mowing activity. Never assume that children will remain where you last saw them. If there is a risk that children may enter the area where you are mowing, have another responsible adult watch them.

DO NOT GIVE CHILDREN RIDES ON THIS UNIT! This encourages them to come near the unit in the future while it is running, and they could be seriously hurt. They may then approach the unit for a ride when you are not expecting it, and you may run over them.

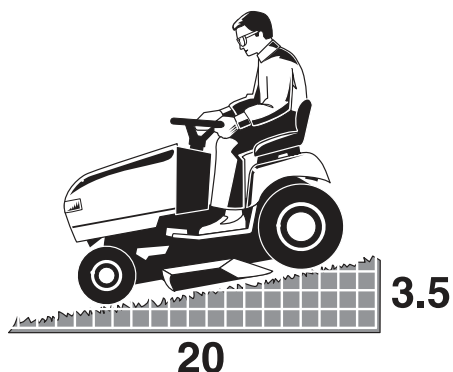


Reverse

Do not mow in reverse unless absolutely necessary. Always look down and behind before and while traveling in reverse even with the mower blades disengaged.



Operator Safety



Slope Operation

You could be seriously injured or even killed if you use this unit on too steep an incline. Using the unit on a slope that is too steep or where you don't have adequate traction can cause you to lose control or roll over.

A good rule of thumb is to not operate on any slope you cannot back up (in 2-wheel drive mode). You should not operate on inclines with a slope greater than a 3.5 ft (1,5 m) rise over a 20.0 ft (6,0 m) length. Always drive up and down slopes: never cross the face.

Also note that the surface you are driving on can greatly impact stability and control. Wet grass or icy pavement can seriously affect your ability to control the unit.

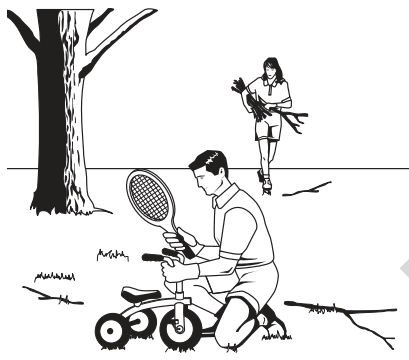
If you feel unsure about operating the unit on an incline, don't do it. It's not worth the risk.

Moving Parts

This equipment has many moving parts that can injure you or someone else. However, if you are seated in the seat properly, and follow all the rules in this book, the unit is safe to operate.

The mower deck has spinning mower blades that can amputate hands and feet. Do not allow anyone near the equipment while it is running!

To help you, the operator, use this equipment safely, it is equipped with an operator-present safety system. Do NOT attempt to alter or bypass the system. See your dealer immediately if the system does not pass all the safety interlock system tests found in this manual.



Thrown Objects

This unit has spinning mower blades. These blades can pick up and throw debris that could seriously injure a bystander. Be sure to clean up the area to be mowed BEFORE you start mowing.

Do not operate this unit without the entire grass catcher or discharge guard (deflector) in place.

Also, do not allow anyone in the area while the unit is running! If someone does enter the area, shut the unit off immediately until they leave.

Fuel and Maintenance

Gasoline is extremely flammable. Its vapors are also extremely flammable and can travel to distant ignition sources. Gasoline must only be used as a fuel, not as a solvent or cleaner. It should never be stored any place where its vapors can build up or travel to an ignition source like a pilot light. Fuel belongs in an approved, plastic, sealed gas can, or in the tractor fuel tank with the cap securely closed. Spilled fuel needs to be cleaned up immediately.

Proper maintenance is critical to the safety and performance of your unit. Be sure to perform the maintenance procedures listed in this manual, especially periodically testing the safety system.



Safe Operation Practices

For Ride-On (Riding) Rotary Mower Machines

Training

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
2. Never allow children or people unfamiliar with these instructions to use the mower. Local regulations may restrict the age of the operator.
3. Never mow while people, especially children, or pets are nearby.
4. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
5. Do not carry passengers.
6. All drivers should seek and obtain professional and practical instruction. Such instruction should emphasize:
 - a. the need for care and concentration when working with ride-on machines;
 - b. control of a ride-on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are:
 - insufficient wheel grip;
 - being driven too fast;
 - inadequate braking;
 - the type of machine is unsuitable for its task;
 - lack of awareness of the effect of ground conditions, especially slopes;
 - incorrect hitching and load distribution.

Preparation

1. While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
2. Thoroughly inspect the area where the equipment is to be used and remove all objects which may be thrown by the machine.
3. **WARNING – Petrol is highly flammable.**
 - a. Store fuel in containers specifically designed for this purpose.
 - b. Refuel outdoors only and do not smoke while refuelling.
 - c. Add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
 - d. If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.
 - e. Replace all fuel tanks and container caps securely.
4. Replace faulty silencers.
5. Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
6. On multi-blade machines, take care as rotating one blade can cause other blades to rotate.

Operation

1. Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
2. Mow only in daylight or in good artificial light.
3. Before attempting to start the engine, disengage all blade attachment clutches and shift into neutral.
4. Do not use on slopes of more than 10 degrees.
5. Remember there is no such thing as a “safe” slope. Travel on grass slopes requires particular care. To guard against overturning:
 - a. do not stop or start suddenly when going up or downhill;
 - b. engage clutch slowly, always keep machine in gear, especially when travelling downhill;
 - c. machine speeds should be kept low on slopes and during tight turns;
 - d. stay alert for humps and hollows and other hidden hazards;
 - e. never mow across the face of the slope, unless the mower is designed for this purpose.

Operator Safety

Operation (Continued)

6. Use care when pulling loads or using heavy equipment.
 - a. Use only approved drawbar hitch points.
 - b. Limit loads to those you can safely control.
 - c. Do not turn sharply. Use care when reversing.
 - d. Use counterweight(s) or wheel weights when suggested in the Instruction Book.
7. Watch out for traffic when crossing or near roadways.
8. Stop the blades rotating before crossing surfaces other than grass.
9. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the machine while in operation.
10. Never operate the mower with defective guards or shields, or without safety protective devices in place.
11. Do not change the engine governor settings or overspeed the engine. Operating an engine at excessive speed may increase the hazard of personal injury.
12. Before leaving the operator's position:
 - a. disengage the power take-off and lower the attachments;
 - b. change into neutral and set the parking brake;
 - c. stop the engine and remove the key.
13. Disengage drive to attachments, stop the engine, and disconnect the spark plug wire(s) or remove the ignition key:
 - a. before cleaning blockages or unclogging chute;
 - b. before checking, cleaning or working on the mower;
 - c. after striking a foreign object. Inspect the mower for damage and make repairs before restarting and operating the equipment;
 - d. if the machine starts to vibrate abnormally (check immediately).
14. Disengage drive to attachments when transporting or not in use.
15. Stop the engine and disengage drive to attachment:
 - a. before refuelling;
 - b. before removing the grass catcher;
 - c. before making height adjustment unless adjustment can be made from the operator's position.
16. Reduce the throttle setting during engine run-out and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of mowing.
17. Before and when backing, look behind and down for small children.
18. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

Maintenance and Storage

1. On multi-blade machines, take care as rotating one blade can cause other blades to rotate.
2. When machine is to be parked, stored or left unattended, lower the cutting means unless a positive mechanical lock is used.
3. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
4. Never store the equipment with petrol in the tank inside a building where fumes may reach an open flame or spark.
5. Allow the engine to cool before storing in any enclosure.
6. To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of grass, leaves, or excessive grease.
7. Check the grass catcher frequently for wear or deterioration.
8. Replace worn or damaged parts for safety.
9. If the fuel tank has to be drained, this should be done outdoors.



WARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds - chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.



WARNING: It is a violation of California Public Resource Code, Section 4442, to use or operate the engine on any forest-covered, brush-covered, or grass-covered land unless the exhaust system is equipped with a spark arrester, as defined in Section 4442, maintained in effective working order. Other states or federal jurisdictions may have similar laws. Contact the original equipment manufacturer, retailer, or dealer to obtain a spark arrester designed for the exhaust system installed on this engine.

All fasteners are in the parts bag. Do not discard any parts or material until the unit is assembled.



WARNING: Before doing any assembly or maintenance to the mower, remove the wire from the spark plug.

NOTE: In this instruction book, left and right describe the location of a part with the operator on the seat.

NOTE: Illustrations and pictorials begin on page 3.

NOTE: To assemble the following loose parts, use the fasteners shown at full size in Figure 28.

Front Wheels

How To Install The Front Wheels (Figure 1)

Use a knife and cut the four sides of the container. Install the **front wheels (A)** in the container.

NOTE: Use a piece of wood about 4 feet (1.25 meters) long to raise the front of the tractor. If a piece of wood cannot be found, get another person to help lift the tractor. Be careful, do not let the tractor fall.

1. Raise the front of the tractor. Set a support (block of wood) under the tractor.
2. Make sure the **valve stem (B)** is to the outside of the tractor. Slide the **front wheel (A)** on the **spindle (C)**.
3. Fasten each **front wheel (A)** with **washers (D)** and **(G)** and **cotter pin (E)**. Bend the ends of the **cotter pin (E)** apart to keep the **front wheel (A)** on the **spindle (C)**.
4. After the **front wheels (A)** are installed, lift the tractor from the support. Roll the tractor off of the container.
5. If your tractor has **hub caps (F)**, install the **hub caps (F)**. Make sure the **washers (D)** hold the **hub caps (F)** in place.

Seat

How To Install The Seat (Figure 2)

1. Carefully remove the plastic bag from the **seat (A)**.
2. Align the holes in the **seat hinge (B)** to the holes in the **seat (A)**. Fasten the **seat (A)** to the **seat hinge (B)** with the **fasteners (D)** and **(E)**.
3. Check the operating position of the **seat (A)**. If the **seat (A)** needs to be adjusted, loosen the two **wing bolts (E)**. Slide the **seat (A)** forward or backward along the **seat adjusting holes (C)**. Tighten the **wing bolts (E)**.

Steering Wheel

How To Assemble The Steering Wheel (Figure 3)

1. Make sure the front wheels point forward.
2. Slide the **cover (C)** over the **steering post (B)**. Make sure the collar of the **cover (C)** is on top.
3. Slide the **steering wheel (A)** onto the **steering post (B)**.
4. Attach the **steering wheel (A)** to the **steering post (B)** with **screw (D)** and **washer (E)**.
5. Some models have an *optional insert (F)* in the parts bag. Attach the **insert (F)** to the centre of the **steering wheel (A)**.

Maintenance Free Battery

IMPORTANT: Before you attach the battery cables to the battery, check the battery date. The battery date tells if the battery must be charged.

1. (Figure 4) Check the top and the side of the **battery (A)** for the location of the battery date.
2. If the **battery (A)** is put into service before the battery date, the battery cables can be attached without charging the **battery (A)**. See "How To Install The Battery Cables".
3. If the **battery (A)** is put into service after the battery date, the **battery (A)** must be charged. See "How To Charge The Battery".

How To Charge The Battery



WARNING: When you charge the battery, do not smoke. Keep the battery away from any sparks. The fumes from the battery acid can cause an explosion.

1. Remove the **battery (A)** and **battery tray (C)**.
2. Remove the protective cap from the battery terminal.
3. Use a 12 volt battery charger to charge the **battery (A)**. Charge at a rate of 6 amperes for one hour. If you do not have a battery charger, have an authorized service centre charge the battery.
4. Install the **battery (A)** and **battery tray (C)**. Make sure the **positive (+) terminal (D)** is on the left side.

Assembly

How To Install The Battery Cables (Figure 4)



WARNING: To prevent sparks, fasten the red cable to the positive (+) terminal before you connect the black cable.

1. Remove the protective caps from the battery terminals.
2. Slide the **terminal cover (B)** onto the **red cable (E)**. Fasten the **red cable (E)** to the **positive (+) terminal (D)** with the **fasteners (F)** and **(G)**.
3. Fasten the **black cable (H)** to the negative (-) terminal with the **fasteners (F)** and **(G)**.

Important! Before You Start Mowing

- Check the engine oil.
- Fill the fuel tank with fuel.
- Check the air pressure of the tires.
- Check the level of the mower housing.
- Attach the battery cables.

Check The Tires

Check the air pressure in the tires. Tires with too much air pressure will cause the unit to ride rough. Also, the wrong air pressure will keep the mower housing from cutting level. The correct air pressure is: Front Tires 0,97 BAR (14 PSI), Rear Tires 0,69 BAR (10 PSI). The tires were over inflated for shipment.

Check The Level Of The Mower Housing

Make sure the level of cut is still correct. After you mow a short distance, look at the area that was cut. If the mower housing does not cut level, see the instructions on "How To Level The Mower Housing" in the *Maintenance* section of this instruction book.

How To Prepare The Engine

Check the oil and fuel levels, and add as needed.

IMPORTANT: Some units are shipped from the factory without oil in the engine. It is important to check the engine oil level before attempting to start or operate the unit. If you start the engine without oil, it will be damaged beyond repair and will not be covered under warranty.

See the "Operation" section of this manual for the type of fuel and oil to use. Before you operate the unit, read the information on safety, operation, maintenance, and storage.



WARNING: Follow the instructions in this manual for the type of fuel and oil to use. Always use a safety fuel container. Do not smoke when adding fuel to the engine. When inside an enclosure, do not fill with fuel. Before you add fuel, stop the engine. Let the engine cool for at least two minutes.

Features and Controls

Location of Controls - Gear Drive Models (Figure 5)

Blade Rotation Control (A) — Use the blade rotation control to start and stop the rotation of the blade.

Clutch / Brake Pedal (B) — The pedal has two functions. The first function is a clutch. The second function is a brake.

Headlight Switch (C) — The headlight switch is the first part of the ignition switch. To use the lights with the engine running, turn the key to the position for the lights.

Ignition Switch (C) — Use the ignition switch to start and stop the engine.

Shift Lever (D) — Use the shift lever to change the speed or direction of the unit.

Lift Lever (E) — Use the lift lever to change the height of cut.

Parking Brake Lever (F) — Use the parking brake lever to engage the brake when you leave the unit.

Throttle Control Lever (G) — Use the throttle control lever to increase or decrease the speed of the engine.

NOTE: Illustrations and pictorials begin on page 3.

Location of Controls - Hydro-Drive Models (Figure 6, 19)

Blade Rotation Control (A) — Use the blade rotation control to start and stop the rotation of the blade.

Brake Pedal (B) — Use the brake pedal to quickly stop.

Headlight Switch (C) — The headlight switch is the first part of the ignition switch. To use the lights with the engine running, turn the key to the position for the lights.

Ignition Switch (C) — Use the ignition switch to start and stop the engine.

Speed Control Pedal (D) — Use the speed control pedal to change the speed and the direction of the unit.

Lift Lever (E) — Use the lift lever to change the height of cut.

Parking Brake Lever (F) — Use the parking brake lever to engage the brake when you leave the unit.

Throttle Control Lever (G) — Use the throttle control lever to increase or decrease the speed of the engine.

(Figure 19) **Automatic Drive Disconnect (A)** — Use the automatic drive disconnect to disengage the transmission.

Attachments

This unit can use many different attachments. This unit can pull attachments like a lawn sweeper, a lawn aerator, or a hopper spreader. This unit can not use attachments that engage the ground like a plough, a disk harrow, or a cultivator.

For trailer and pull-behind attachments, the maximum weight is 113 kg (250 lbs.).

Operation

Before Operating

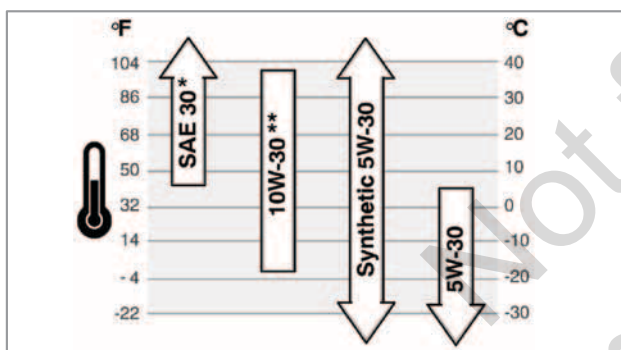
Check/Add Engine Oil

IMPORTANT: Some units are shipped from the factory without oil in the engine. It is important to check the engine oil level before attempting to start or operate the unit. If you start the engine without oil, it will be damaged beyond repair and will not be covered under warranty.

Oil Recommendations

We recommend the use of Briggs & Stratton Warranty Certified oils for best performance. Other high-quality detergent oils are acceptable if classified for service SF, SG, SH, SJ or higher. Do not use special additives.

Outdoor temperatures determine the proper oil viscosity for the engine. Use the chart to select the best viscosity for the outdoor temperature range expected.



* Below 40°F (4°C) the use of SAE 30 will result in hard starting.

** Above 80°F (27°C) the use of 10W-30 may cause increased oil consumption. Check oil level more frequently.

How To Check/Add Oil (Figure 7)

Before adding or checking the oil

- Place the unit on a level surface.
 - Clean the oil fill area of any debris.
1. Raise the tractor hood.
 2. Remove the **dipstick (A)** and wipe with a clean cloth.
 3. Insert and tighten the dipstick.
 4. Remove the dipstick and check the oil level. It should be at the top of the **full indicator (B)** on the dipstick.
 5. If low, add oil slowly into the **engine oil fill (C)**. Do not overfill. After adding oil, wait one minute and then recheck the oil level.
 6. Replace and tighten the dipstick.

Add Fuel

Fuel Recommendations

Fuel must meet these requirements:

- Clean, fresh, unleaded gasoline.
- A minimum of 87 octane/87 AKI (91 RON). High altitude use, see below.
- Gasoline with up to 10% ethanol (gasohol) is acceptable.

CAUTION: Do not use unapproved gasolines, such as E15 and E85. Do not mix oil in gasoline or modify the engine to run on alternate fuels. This will damage the engine components and void the engine warranty.

To protect the fuel system from gum formation, mix a fuel stabilizer into the fuel. See Storage. All fuel is not the same. If starting or performance problems occur, change fuel providers or change brands. This engine is certified to operate on gasoline. The emissions control system for this engine is EM (Engine Modifications)

High Altitude

At altitudes over 5,000 feet (1524 meters), a minimum 85 octane/85 AKI (89 RON) gasoline is acceptable. To remain emissions compliant, high altitude adjustment is required. Operation without this adjustment will cause decreased performance, increased fuel consumption, and increased emissions. See a Briggs & Stratton Authorized Dealer for high altitude adjustment information.

Operation of the engine at altitudes below 2,500 feet (762 meters) with the high altitude kit is not recommended.

How To Add Fuel (Figure 8)

WARNING: Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death.

When Adding Fuel

- Turn engine off and let engine cool at least 2 minutes before removing the fuel cap.
- Fill fuel tank outdoors or in well-ventilated area.
- Do not overfill fuel tank. To allow for expansion of the fuel, do not fill above the bottom of the fuel tank neck.
- Keep fuel away from sparks, open flames, pilot lights, heat, and other ignition sources.
- Check fuel lines, tank, cap, and fittings frequently for cracks or leaks. Replace if necessary
- If fuel spills, wait until it evaporates before starting engine.

1. Raise the tractor hood.
2. Clean the fuel cap area of dirt and debris. Remove the fuel cap.
3. Fill the **fuel tank (A)** with fuel. To allow for expansion of the fuel, do not fill above the bottom of the **fuel tank neck (B)**.
4. Reinstall the fuel cap.

Operation - Gear Drive Models

Using Controls

How To Use The Throttle Control (Figure 5)

Use the **throttle control (G)** to increase or decrease the speed of the engine.

1. The FAST position is marked with a detent. For normal operation and when using a grass bagger, move the throttle control to the FAST position. For maximum charging of the battery and for a cooler running engine, operate the engine in the FAST position.
2. The engine governor is set at the factory for maximum performance. Do not adjust the governor to increase the speed of the engine.

How To Use The Blade Rotation Control (Figure 5)

Use the **blade rotation control (A)** to engage the blade(s).

1. Before you start the engine, make sure the **blade rotation control (A)** is in the DISENGAGE position.
2. Move the **blade rotation control (A)** to the ENGAGE position to rotate the blade(s).
NOTE: If the engine stops when you engage the blade(s), the seat switch is not activated. Make sure you sit in the middle of the seat.
3. Move the **blade rotation control (A)** to the DISENGAGE position to stop the blade(s). Before you leave the operator's position, make sure the blade(s) has stopped rotating.
4. Before you ride the unit across a sidewalk or a road, move the **blade rotation control (A)** to the DISENGAGE position.

 **WARNING:** Always keep your hands and feet away from the blade, deflector opening, and the mower housing when the engine runs.

How To Use The Shift Lever (Figure 5)

CAUTION: Before you move the shift lever, completely push the clutch/brake pedal forward to stop the unit. If the unit is not stopped, the gearbox can be damaged.

1. Completely push the **clutch/brake pedal (B)** forward to stop the unit. Keep your foot on the pedal.
2. Move the **throttle control lever (G)** to the SLOW position.
3. To go forward, move the **shift lever (D)** to a forward speed setting. To go backward, move the **shift lever (D)** to reverse.
4. Slowly release the **clutch/brake pedal (B)**. Do not keep your foot on the pedal.
5. Move the **throttle control (G)** to the FAST position.

How To Use The Parking Brake (Figure 5)

1. Completely push the **clutch/brake pedal (B)** forward.
2. Lift and hold the **parking brake lever (F)**.
3. Remove your foot from the **clutch/brake pedal (B)** and then let go of the **parking brake lever (F)**. Make sure the parking brake will hold the unit.
4. To release the **parking brake lever (F)**, completely push the **clutch/brake pedal (B)** forward. The parking brake will automatically release.



WARNING: Before you leave the operator's position, move the shift lever to the neutral (N) position. Set the parking brake. Move the blade rotation control to the DISENGAGE position. Stop the engine and remove the ignition key.

How To Change The Cutting Height (Figure 5)

To change the cutting height, raise or lower the **lift lever (E)** as follows.

1. Move the **lift lever (E)** forward to lower the mower housing and back to raise the mower housing.
2. When you ride on a sidewalk or road, move the **lift lever (E)** to the highest position and move the **blade rotation control (A)** to the DISENGAGE position.

Operation

How To Stop The Unit (Figure 5)

1. Completely push the **clutch/brake pedal (B)** forward to stop the unit. Keep your foot on the pedal.
2. Move the **blade rotation control (A)** to the DISENGAGE position.
3. Move the **shift lever (D)** to the NEUTRAL position.
4. Set the **parking brake (F)**.



WARNING: Make sure the parking brake will hold the unit.

5. Move the **throttle control (G)** to the SLOW position.
6. To stop the engine, turn the **ignition key (C)** to the OFF position. Remove the key.

How To Transport The Unit

1. Move the blade rotation control to the DISENGAGE position.
2. Raise the lift lever to the highest position.
3. Move the throttle control to a position between SLOW and FAST.
4. To go faster, move the shift lever to a faster speed.

Mowing

How To Operate With The Mower Housing

IMPORTANT: When you operate with the mower housing, always operate with the throttle control in the FAST position.

1. Start the engine.
2. Move the lift lever to a height of cut position. In high or thick grass, cut the grass in the highest position first and then lower the mower housing to a lower position.
3. Move the throttle control to the SLOW position.
4. Slowly move the blade rotation control to the ENGAGE position.
5. Push the clutch/brake pedal completely forward.
6. Move the shift lever to one of the speed settings.

NOTE: When you mow in heavy grass or mow with a bagger, put the shift lever in the slowest speed.

7. Slowly release the clutch/brake pedal.
8. Move the throttle control to the FAST position. If you need to go faster or slower, stop the unit and move the shift lever to another speed setting.
9. Make sure the level of cut is still correct. After you mow a short distance, look at the area that was cut. If the mower housing does not cut level, see the instructions on "How To Level The Mower Housing" in the *Maintenance* section.



WARNING: For better control of the unit, select a safe speed.

How To Operate On Hills



WARNING: Do not ride up or down slopes that are too steep to back straight up. Never ride the unit across a slope.

1. Before you ride up or down a hill, move the shift lever to the slowest speed.
2. Do not stop or change speed settings on a hill. If you must stop, quickly push the clutch/brake pedal forward and set the parking brake.
3. To start again, make sure the shift lever is in the slowest speed. Move the throttle control to the SLOW position. Slowly release the pedal.
4. If you must stop or start on a hill, always have enough space for the unit to roll when you release the brake and engage the clutch.
5. Be very careful when you change directions on a hill. When on a slope or in a turn on a hill, move the throttle control to the SLOW position to help prevent an accident.

Starting the Engine

NOTE: This unit is equipped with a safety interlock system that includes a sensor switch for the seat. This system will stop the engine when the operator leaves the seat. For your protection, always make sure this system operates correctly.

NOTE: The engine will not start unless you sit in the seat, depress the clutch/brake pedal, and move the blade rotation control to the DISENGAGE position.

1. Check oil and fuel levels, and add as needed.
2. Push the clutch/brake pedal completely forward. Keep your foot on the pedal.
3. Move the shift lever to the neutral (N) position.
4. Make sure the blade rotation control is in the DISENGAGE position.
5. Move the throttle control completely forward past the FAST position to the CHOKE position.

NOTE: The CHOKE position is usually unnecessary when restarting a warm engine.

6. Turn the ignition key to the START position.

NOTE: If the engine does not start after four or five tries, see the *Troubleshooting* section.

7. Slowly move the throttle control to the FAST position.
8. To stop the engine, turn the ignition key to the OFF position. Remove the key.

Mowing and Bagging Tips

1. For a lawn to look better, check the cutting level of the mower housing. See “How To Level The Mower Housing” in the *Maintenance* section.
2. For the mower housing to cut level, make sure the tires have the correct amount of air pressure.
3. Every time you use the unit, check the blade. If the blade is bent or damaged, immediately replace the blade. Also, make sure the nut for the blade is tight.
4. Keep the blade(s) sharpened. Worn blades will cause the ends of the grass to turn brown.
5. Do not cut or bag grass that is wet. Wet grass will not discharge correctly. Let the grass dry before cutting.
6. Use the left side of the mower housing to trim near an object.
7. Discharge the cut grass onto the mowed area. The result is a more even discharge of cut grass.
8. When you mow large areas, start by turning to the right so that the cut grass will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left turns until finished.
9. If the grass is very high, cut two times to decrease the load on the engine. First cut with the mower housing in the highest position and then lower the mower housing for the second cut.
10. For better engine performance and an even discharge of the cut grass, always operate the engine with the throttle in FAST position.
11. When you use a bagger, operate the engine with the throttle in FAST position and the shift lever in first or second gear.
12. For better cutting performance and a quality cut, mow with the shift lever in one of the slower speeds.
13. After each use, clean the bottom and top of the mower housing for better performance. Also, a clean mower housing will help prevent a fire.

Operation - Hydro-Drive Models

Using Controls

How To Use The Throttle Control (Figure 6)

Use the **throttle control (G)** to increase or decrease the speed of the engine.

1. The FAST position is marked with a detent. For normal operation and when using a grass bagger, move the throttle control to the FAST position. For maximum charging of the battery and for a cooler running engine, operate the engine in the FAST position.
2. The engine governor is set at the factory for maximum performance. Do not adjust the governor to increase the speed of the engine.

How To Use The Blade Rotation Control (Figure 6)

Use the **blade rotation control (A)** to engage the blade(s).

1. Before you start the engine, make sure the **blade rotation control (A)** is in the DISENGAGE position.
 2. Move the **blade rotation control (A)** to the ENGAGE position to rotate the blade(s).
- NOTE:** If the engine stops when you engage the blade(s), the seat switch is not activated. Make sure you sit in the middle of the seat.
3. Move the **blade rotation control (A)** to the DISENGAGE position to stop the blade(s). Before you leave the operator's position, make sure the blade(s) has stopped rotating.
 4. Before you ride the unit across a sidewalk or a road, move the **blade rotation control (A)** to the DISENGAGE position.



WARNING: Always keep your hands and feet away from the blade, deflector opening, and the mower housing when the engine runs.

How To Use The Speed Control Pedal (Figure 6)

The drive system uses a Hydrostatic Automatic Drive transmission. The Hydrostatic transmission is very easy to operate. This type of drive system does not require a shift lever or a clutch pedal.

The speed and direction of travel is controlled by a single **speed control pedal (D)** operated with your right foot. Do not use the left brake pedal in normal operation. Only use the left brake pedal to quickly stop in an emergency.

Operation

Driving and Stopping the Unit

How To Drive Forward

1. (Figure 19) The **automatic drive disconnect (A)** must be in the **DRIVE position (B)**.
2. Slowly release your left foot from the brake pedal.
3. Move the throttle control to the FAST position.
4. (Figure 18) Slowly push the **speed control pedal (A)** forward (**D**) to the desired speed.
5. To increase forward speed, slowly move the **speed control pedal (A)** forward. To reduce forward speed, slowly release the **speed control pedal (A)** until the unit slows to the desired speed.

How To Drive In Reverse

1. (Figure 18) Look to the rear.
2. Slowly push the **speed control pedal (A)** to the **REVERSE position (B)**.

How To Change Directions

CAUTION: To change directions, do not use the left brake pedal. Use only the speed control pedal.

1. (Figure 18) Slowly remove your foot from the **speed control pedal (A)**. The **speed control pedal (A)** will automatically return to the **NEUTRAL position (C)**.
2. When the unit stops, slowly move the **speed control pedal (A)** to the desired direction.

How To Disconnect The Transmission (Figure 19)

To push the unit, use the **automatic drive disconnect (A)** to release the transmission. The engine must be off.

3. Move and latch the **automatic drive disconnect (A)** in the **PUSH position (C)**. The transmission is now released and the unit can be pushed.

NOTE: In cold weather, the heavy viscosity oil in the transmission will make the unit difficult to push.

4. To engage the transmission, unlatch the **automatic drive disconnect (A)**. The transmission is now connected and ready to operate.

How To Use The Parking Brake (Figure 6)

1. Completely push the **brake pedal (B)** forward.
2. Lift and hold the **parking brake lever (F)**.
3. Remove your foot from the **brake pedal (B)** and then let go of the **parking brake lever (F)**. Make sure the parking brake will hold the unit.

4. To release the **parking brake lever (F)**, completely push the **brake pedal (B)** forward. The parking brake will automatically release.



WARNING: Before you leave the operator's position, set the parking brake. Move the blade rotation control to the DISENGAGE position. Stop the engine and remove the ignition key.

How To Change The Cutting Height (Figure 6)

To change the cutting height, raise or lower the **lift lever (E)** as follows.

1. Move the **lift lever (E)** forward to lower the mower housing and back to raise the mower housing.
2. When you ride on a sidewalk or road, move the **lift lever (E)** to the highest position and move the **blade rotation control (A)** to the DISENGAGE position.

How To Stop The Unit (Figure 6)

1. Slowly remove your foot from the **speed control pedal (D)**. The **speed control pedal (D)** will automatically return to the NEUTRAL position and the unit will stop.
2. Move the **blade rotation control (A)** to the DISENGAGE position.
3. Set the **parking brake (F)**.



WARNING: Make sure the parking brake will hold the unit.

4. Move the **throttle control (G)** to the SLOW position.
5. To stop the engine, turn the **ignition key (C)** to the OFF position. Remove the key.

How To Transport The Unit

1. Move the blade rotation control to the DISENGAGE position.
2. Raise the lift lever to the highest position.
3. Move the throttle control to a position between SLOW and FAST.
4. Slowly push the speed control pedal forward to the desired speed.

Mowing

How To Operate With The Mower Housing

IMPORTANT: When you operate with the mower housing, always operate with the throttle control in the FAST position.

1. Start the engine.
2. Move the lift lever to a height of cut position. In high or thick grass, cut the grass in the highest position first and then lower the mower housing to a lower position.
3. Move the throttle control to the SLOW position.
4. Slowly move the blade rotation control to the ENGAGE position.
5. Move the throttle control to the FAST position.
6. Slowly push the speed control pedal to the desired speed.

NOTE: When you mow in heavy grass or mow with a bagger, use a slow forward speed.

7. Make sure the level of cut is still correct. After you mow a short distance, look at the area that was cut. If the mower housing does not cut level, see the instructions on “How To Level The Mower Housing” in the *Maintenance* section.



WARNING: For better control of the unit, select a safe speed.

How To Operate On Hills



WARNING: Do not ride up or down slopes that are too steep to back straight up. Never ride the unit across a slope.

1. Control the speed only with the speed control pedal. Do not use the brake pedal on a hill.
2. To help prevent an accident, slowly move the speed control pedal. Avoid sudden turns or changes in speed.
3. To reduce forward speed when going down a hill, slowly release the speed control pedal until the unit slows to the desired speed.

How To Stop On a Hill

1. Avoid stopping on a hill. If you must quickly stop in an emergency, remove your right foot from the speed control pedal and quickly depress the left brake pedal.
2. Set the parking brake.
3. Before you dismount from the seat, move the throttle control to the SLOW position, move the blade rotation control attachment clutch to the DISENGAGED position, turn off the engine and set the parking brake.

How To Start Operation On A Hill

1. Start the engine.
2. Move the blade rotation control attachment clutch to the ENGAGED position.
3. Move the throttle control to the FAST position.
4. Depress the brake pedal and release the parking brake. As you release the parking brake, push the speed control pedal to the desired speed.



Slowly push the speed control pedal as you release the parking brake. The parking brake must be disengaged before the speed control pedal is able to engage the transmission.

Starting the Engine

NOTE: This unit is equipped with a safety interlock system that includes a sensor switch for the seat. This system will stop the engine when the operator leaves the seat. For your protection, always make sure this system operates correctly.

NOTE: The engine will not start unless you sit in the seat, depress the clutch/brake pedal, and move the blade rotation control to the DISENGAGE position.

1. Check oil and fuel levels, and add as needed.
2. Push the clutch/brake pedal completely forward. Keep your foot on the pedal.
3. Make sure the blade rotation control is in the DISENGAGE position.
4. Move the throttle control completely forward to the CHOKE position.

NOTE: The CHOKE position is usually unnecessary when restarting a warm engine.

5. Turn the ignition key to the START position.

NOTE: If the engine does not start after four or five tries, see the *Troubleshooting* section.

6. Slowly move the throttle control to the FAST position.
7. To stop the engine, turn the ignition key to the OFF position. Remove the key.

Operation

Mowing and Bagging Tips

1. For a lawn to look better, check the cutting level of the mower housing. See “How To Level The Mower Housing” in the *Maintenance* section.
2. For the mower housing to cut level, make sure the tires have the correct amount of air pressure.
3. Every time you use the unit, check the blade. If the blade is bent or damaged, immediately replace the blade. Also, make sure the nut for the blade is tight.
4. Keep the blade(s) sharpened. Worn blades will cause the ends of the grass to turn brown.
5. Do not cut or bag grass that is wet. Wet grass will not discharge correctly. Let the grass dry before cutting.
6. Use the left side of the mower housing to trim near an object.
7. Discharge the cut grass onto the mowed area. The result is a more even discharge of cut grass.
8. When you mow large areas, start by turning to the right so that the cut grass will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left turns until finished.
9. If the grass is very high, cut two times to decrease the load on the engine. First cut with the mower housing in the highest position and then lower the mower housing for the second cut.
10. For better engine performance and an even discharge of the cut grass, always operate the engine with the throttle in FAST position.
11. When you use a bagger, operate the engine with the throttle in FAST position and the speed control pedal pushed 1/3 to 1/2 forward.
12. After each use, clean the bottom and top of the mower housing for better performance. Also, a clean mower housing will help prevent a fire.

Maintenance Chart

TRACTOR AND MOWER
Every 8 Hours or Daily
Check safety interlock system
Clean debris off tractor and mower deck
Clean debris from engine compartment
Every 25 Hours or Annually *
Check tire pressure
Check mower blade stopping time
Check tractor and mower for loose hardware
Every 50 Hours or Annually *
Clean battery and cables
Check tractor brakes
See Dealer Annually to
Lubricate tractor and mower
Check mower blades **

* Whichever comes first

** Check blades more often in regions with sandy soils or high dust conditions.

ENGINE
First 5 Hours
Change engine oil
Every 8 Hours or Daily
Check engine oil level
Every 25 Hours or Annually *
Clean engine air filter and pre-cleaner **
Every 50 Hours or Annually *
Change engine oil
Replace oil filter
Annually
Replace air filter
Replace pre-cleaner
See Dealer Annually to
Inspect muffler and spark arrester
Replace spark plug
Replace fuel filter
Clean engine air cooling system

* Whichever comes first

** Clean more often in dusty conditions or when airborne debris is present.

Maintenance

General Recommendations

1. The owner's responsibility is to maintain this product. This will extend the life of the product and is also necessary to maintain warranty coverage.
2. Check the spark plug, drive brake, lubricate the unit, and clean the air filter once a year.
3. Check the fasteners. Make sure all fasteners are tight.
4. Follow the *Maintenance* section to keep the unit in good operating condition.



WARNING: Before you make an inspection, adjustment, or repair to the unit, disconnect the wire to the spark plug. Remove the wire from the spark plug to prevent the engine from starting by accident.

Maintenance - Tractor

Inspection

Inspect Blade (Figure 9)



WARNING: Before you inspect or remove the blade, disconnect the wire to the spark plug. If the blade hits an object, stop the engine. Check the unit for damage. The blade has sharp edges. When you hold the blade, use gloves or cloth material to protect your hands.

If you keep the **blade (A)** sharp and inspect the blade for damage, the blade will cut better and be more safe to operate. Frequently check the blade for excessive wear, cracks, or other damage. Frequently check the **nut (C)** that holds the **blade (A)**. Keep the **nut (C)** tight. If the blade hits an object, stop the engine. Disconnect the wire to the spark plug. See if the blade is bent or damaged. Check the **blade adapter (E)** for damage. Before you operate the unit, replace damaged parts with original equipment parts. See the authorized service centre in your area. At the beginning of each cutting season (or more frequently if deemed necessary), have an authorized service person inspect the blade or replace the old blade with an original equipment part.

How To Remove And Install The Blade (Figure 9)

1. Remove the mower housing. See the instructions on "How To Remove The Mower Housing".
2. Use a piece of wood to keep the blade from rotating.
3. Remove the **nut (C)** that holds the **blade (A)**.
4. Check the **blade (A)** and the **blade adapter (E)** according to the instructions for "Inspect Blade". Replace a badly worn or damaged blade with an original equipment blade or equivalent. Contact a local authorized dealer.
5. Clean the top and bottom of the mower housing. Remove all the grass and debris.
6. Mount the **blade (A)** and **blade adapter (E)** on the **mandrel (F)**.
7. Mount the **blade (A)** so that the **hi-lift edges (G)** are up. If the blade is upside down, the blade will not cut correctly and can cause an accident.
8. Fasten the **blade (A)** with the original **washers (B and D)** and **nut (C)**. Make sure the outside rim of the **Belleville washer (B)** is against the **blade (A)**.



WARNING: Always keep the **nut (C)** tight that holds the **blade (A)**. A loose nut or blade can cause an accident.

9. Tighten the **nut (C)** that holds the **blade (A)** to a torque of 41,5 Nm (30 foot pounds).
10. Install the mower housing. See "How To Remove The Mower Housing".

Adjustments

How To Adjust The Blade Rotation Control



WARNING: To prevent an injury, the blade rotation control must operate correctly.

In normal usage, the blade rotation control will not require an adjustment. However, if the cutting performance decreases or the quality of cut is poor, make the following changes.

1. When you mow, make sure the throttle control is in the FAST position.
2. (Figure 10) Move the blade rotation control to the **DISENGAGE position (A)**.
3. Stop the engine. Disconnect the wire from the spark plug.

4. Check the blade(s). Keep a sharp edge on the blade(s). A blade that is not sharp will cause the tips of the grass to become brown.
5. (Figure 11) Disconnect the **blade drive spring (B)** from the **blade control rod (A)**. Move the **blade drive spring (B)** to the **middle hole (D)**. This will increase the tension on the mower drive belt.
6. Attach the wire to the spark plug. Mow for a short distance and again check the quality of cut. If necessary, move the **blade drive spring (B)** to the **bottom hole (E)**.
7. Again check the quality of cut. If the quality of cut has not improved, replace the mower drive belt. See "How To Replace The Mower Drive Belt". If replacing the belt does not correct the problem, take the unit to an authorized dealer for service.


NOTE: (Figure 11) If you replace the mower drive belt, move the **blade drive spring (B)** to the **top hole (C)**.

IMPORTANT: When you move the blade rotation control to the DISENGAGE position, **all movement should stop within five seconds**. If there is movement of the belt or the blades continue to rotate, take the unit to an authorized dealer for service.

How To Check And Adjust The Drive Brake - Gear Drive Models (Figure 13)

Completely push the clutch/brake pedal forward. Set the parking brake. Move the shift lever to the neutral (N) position. Push the unit. If the rear wheels rotate, adjust the **drive brake (A)** as follows.

1. The location of the **drive brake (A)** is on the right side of the **gearbox (C)**.
2. Make sure the parking brake is set and the shift lever is in neutral (N). Turn the **hex nut (B)** in a clockwise direction until the rear wheels do not turn when the unit is pushed forward.
3. Release the parking brake and push the unit. If the unit does not roll, turn the **hex nut (B)** in a counter-clockwise direction until the unit rolls.
4. Set the parking brake. Push the unit. If the rear wheels do not turn, the **drive brake (A)** is correctly adjusted. Release the parking brake.

 **WARNING:** If you cannot correctly adjust the drive brake, take the unit to an authorized dealer for service.

How To Check And Adjust The Drive Brake - Hydro-Drive Models (Figure 13, 19)

(Figure 19) Set the parking brake. Move the **automatic drive disconnect (A)** to the **PUSH position (C)**. Push the unit. If the rear wheels rotate, adjust the drive brake as follows:

1. (Figure 13) The location of the **drive brake (A)** is on the right side of the **gearbox (C)**.
2. (Figure 19) Make sure the parking brake is set and the **automatic drive disconnect (A)** is in the **PUSH position (C)**.
3. (Figure 13) Turn the **hex nut (B)** in a clockwise direction until the rear wheels do not turn when the unit is pushed forward.
4. Release the parking brake and push the unit. If the unit does not roll, turn the **hex nut (B)** in a counter-clockwise direction until the unit rolls.
5. Set the parking brake. Push the unit. If the rear wheels do not turn, the **drive brake (A)** is correctly adjusted. Release the parking brake.



WARNING: If you cannot correctly adjust the drive brake, take the unit to an authorized dealer for service.

Maintenance Free Battery

How To Remove The Battery (Figure 4)

To charge or clean the **battery (A)**, remove the **battery (A)** from the unit as follows.



WARNING: To prevent sparks, disconnect the black battery cable (H) from the negative (-) terminal before you disconnect the red cable (E).



WARNING: The battery contains sulphuric acid which is harmful to the skin, eyes and clothing. If the acid gets on the body or clothing, wash with water.

1. Disconnect the **black cable (H)** from the negative (-) terminal.
2. Disconnect the **red cable (E)** from the **positive (+) terminal (D)**.
3. Lift the **battery tray (C)** and the **battery (A)** out of the unit.

Maintenance

How To Charge The Battery (Figure 4)



WARNING: When you charge the battery, do not smoke. Keep the battery away from any sparks. The fumes from the battery acid can cause an explosion.

1. Before you charge the **battery (A)**, remove the **battery (A)**.
2. To charge the **battery (A)**, use a 12 volt battery charger. Charge at a rate of 6 amperes for 1 hour.
3. Install the **battery (A)**.



WARNING: To prevent sparks, fasten the red cable to the positive (+) terminal before you connect the black cable.

4. Fasten the **red cable (E)** to the **positive (+) terminal (D)** with the fasteners as shown.
5. Fasten the **black cable (H)** to the negative (-) terminal with the fasteners as shown.

Mower Housing

How To Level The Mower Housing (Figure 14, 15)

If the mower housing is level, the blade will cut easier and the lawn will look better.



WARNING: Before you make an inspection, adjustment, or repair to the unit, disconnect the wire to the spark plug. Remove the spark plug wire to prevent the engine from starting by accident.

1. Make sure the unit is on a hard flat surface.
2. Check the air pressure in the tires. If the air pressure is incorrect, the mower housing will not cut level. Make sure the tires are inflated to: Front Tires 0,97 BAR (14 PSI), Rear Tires 0,69 BAR (10 PSI).
3. Some models have gauge wheels on the mower housing. If equipped, remove the gauge wheels.

IMPORTANT: The gauge wheels must be removed to correctly adjust the level of the mower housing.

4. (Figure 14) Move the **lift lever (A)** to the **lowest cut position (B)**.



WARNING: The lifter lever (A) is spring loaded. Make sure the lift lever (A) is locked in the lowest cut position (B).

5. (Figure 15) Loosen the left and right **adjuster knobs (A)**. Push down on each side of the mower housing. Make sure both sides of the mower housing are setting on a flat surface. Also, make sure the lift links are loose and can easily move up or down.
6. Push down on the **lift links (B)** and tighten the left and right **adjuster knobs (A)**. Make sure the **adjuster knobs**

(A) are tight. If necessary, use a wrench to tighten the **adjuster knobs (A)**.

7. (Figure 14) Raise the **lift lever (A)**.
8. If equipped, install the gauge wheels.
9. Mow for a short distance. If the height of cut is not level, repeat the above steps.

How to Adjust the Gauge Wheels (Figure 14, 21, 22)

The axle bolts for the gauge wheels were mounted in the LOW cut position. To change the position of the gauge wheels, move the axle bolts as follows.

IMPORTANT: Before you adjust the gauge wheels, you must do the following. Make sure the mower housing is level. Make sure the height of cut is set at the height you want for your lawn. Mow a short distance on a flat level area and look at the area that was cut. If the mower housing does not cut level, see the instructions "How to Level the Mower Housing."



WARNING: Before you make an inspection, adjustment, or repair to the unit, disconnect the wire to the spark plug. Remove the spark plug wire to prevent the engine from starting by accident.

1. (Figure 21) Remove the **locking ring (A)** and **washer (B)** from the **axle bolt (C)** to remove the **gauge wheels (D)**.
2. (Figure 14) Mow a short distance on a flat level area to check the level of cut and the height of cut. Look at the **height of cut position number (C)** on the **lift lever (A)**.
3. (Figure 22) Look at each **gauge wheel bracket (A)**. There are 3 holes in each bracket and a number next to each hole. The number for the height of cut position on the **lift lever (C)** indicates the correct hole to use on each **gauge wheel bracket (A)**.
4. Assemble the axle bolts to the **gauge wheel brackets (A)** using the correct hole in the bracket as indicated in Figure 22.

NOTE: If the height of cut position is changed by the lift lever, you must move the gauge wheels to the correct hole (Figure 22) to keep a level height of cut.

Maintenance

Lubrication

Where To Lubricate (Gear Drive Models - Figure 16, Hydro-Drive Models - Figure 17)



Models with grease fittings: Lubricate with grease gun.



Apply grease with a brush to the areas shown.



Lubricate the areas shown with engine oil.

NOTE: Apply grease to the steering gear assembly.

CAUTION: If the unit is operated in dry areas that have sand, use a dry graphite spray to lubricate the unit.

Check The Tires

Check the air pressure in the tires. Tires with too much air pressure will cause the unit to ride rough. Also, the wrong air pressure will keep the mower housing from cutting level. The correct air pressure is: Front Tires 0,97 BAR (14 PSI), Rear Tires 0,69 BAR (10 PSI).

Disassembly

How To Replace The Mower Drive Belt (Figure 12)

1. Remove the mower housing. See the instructions on "How To Remove The Mower Housing".
2. Pull the **belt retainer (A)** away from the **idler pulley (B)** and remove the **mower drive belt (C)**.
3. Pull the **belt retainer (D)** away from the **right mandrel pulley (E)** and remove the **mower drive belt (C)**.
4. Pull the **belt retainer (D)** away from the **left mandrel pulley (F)** and remove the **mower drive belt (C)**.
5. To install the mower drive belt, reverse the above steps.

How To Remove The Mower Housing (Figure 20)

1. Move the **blade rotation control (A)** to the DISENGAGE position.
2. If equipped, remove the gauge wheels.
3. Move the **lift lever (B)** to the level adjustment position.

CAUTION: The lift lever is spring loaded. Make sure the lift lever is locked in the LEVEL ADJUSTMENT position.

4. Remove the hair pins and the washers from the **adjuster arms (C)**. See illustrations "3" and "4".
5. Remove the hair pins and washers from the **suspension links (D)**. See illustrations "1" and "2".
6. Disconnect the **extension spring (E)** from the **blade control rod (F)**. See illustration "5".
7. Disconnect the **front hanger (I)** from the axle support. See illustration "6".
8. Remove the **mower drive belt (G)** from the **stack pulley (H)**.
9. Pull the mower housing away from the right side of the unit.
10. To install the mower housing, reverse the above steps.

How To Replace The Fuse

If the fuse is blown, the engine will not start. Remove the fuse and replace with a 15 amp. automotive fuse.

Maintenance - Engine

We recommend that you see any Briggs & Stratton Authorized Dealer for all maintenance and service of the engine and engine parts.

NOTE: All the components used to build this engine must remain in place for proper operation.

Emissions Control

Maintenance, replacement, or repair of the emissions control devices and systems may be performed by any non-road engine repair establishment or individual.

However, to obtain "no charge" emissions control service, the work must be performed by a factory authorized dealer. See the Emissions Warranty.

Maintenance

Carburetor Adjustment

Never make adjustments to the carburetor. The carburetor was set at the factory to operate efficiently under most conditions. However, if adjustments are required, see a Briggs & Stratton Authorized Dealer for service.

How To Change The Oil (Figure 7, 23, 24)

Used oil is a hazardous waste product and must be disposed of properly. Do not discard with household waste. Check with your local authorities, service center, or dealer for safe disposal/recycling facilities.

Remove Oil

1. With engine off but still warm, disconnect the spark plug wire and keep it away from the spark plug.
2. (Figure 7) Remove the **dipstick (A)**.
3. (Figure 23) Remove the **oil drain plug (A)**. Drain the oil into an approved container.
NOTE: Oil drain plug may vary according to model.
4. After the oil has drained, install and tighten the oil drain plug.

Change The Oil Filter (if equipped)

Some models are equipped with oil filter. For replacement intervals, see the Maintenance chart.

1. Drain the oil from the engine. See Remove Oil section.
2. (Figure 24) Remove the **oil filter (A)** and dispose of properly.
3. Before you install the new oil filter, lightly lubricate the oil filter gasket with fresh, clean oil.
4. Install the oil filter by hand until the gasket contacts the oil filter adapter, then tighten the oil filter 1/2 to 3/4 turns.
5. Add oil. See Add Oil section.
6. Start and run the engine. As the engine warms up, check for oil leaks.
7. (Figure 7) Stop the engine and check the oil level. It should be at the top of the **full indicator (B)** on the **dipstick (A)**.

Add Oil

- Place the unit on a level surface.
 - Clean the oil fill area of any debris.
 - See the Specifications section for oil capacity.
1. (Figure 7) Remove the **dipstick (A)** and wipe with a clean cloth.
 2. Pour the oil slowly into the **engine oil fill (C)**. Do not overfill. After adding oil, wait one minute and then check the oil level.

3. Install and tighten the dipstick.
4. Remove the dipstick and check the oil level. It should be at the top of the **full indicator (B)** on the dipstick.
5. Install and tighten the dipstick.

How To Service The Air Filter (Figure 25)



WARNING: Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death.

- Never start or run the engine with the air cleaner assembly (if equipped) or the air filter (if equipped) removed.

NOTE: Do not use pressurized air or solvents to clean the filter. Pressurized air can damage the filter and solvents will dissolve the filter.

The air filter system uses a cylindrical cartridge air filter. Some models are also equipped with a pre-cleaner that can be washed and reused.

1. Remove the **fasteners (A)** and the **air filter cover (B)**.
2. To remove the **filter (C)**, lift the end of the filter and then pull the filter off the **intake (D)**.
3. Remove the **pre-cleaner (E)**, if equipped, from the filter.
4. To loosen debris, gently tap the filter on a hard surface. If the filter is excessively dirty, replace with a new filter.
5. Wash the pre-cleaner in liquid detergent and water. Then allow it to thoroughly air dry. Do not oil the pre-cleaner.
6. Assemble the dry pre-cleaner to the filter.
7. Install the filter on the intake. Push the end of the filter into the base as shown. Make sure filter fits securely in the base.
8. Install air filter cover and secure with fasteners.

Storage (over 30 days)



WARNING: Fuel and its vapors are extremely flammable and explosive. Fire or explosion can cause severe burns or death.

When Storing Fuel Or Equipment With Fuel In Tank

- Store away from furnaces, stoves, water heaters or other appliances that have pilot lights or other ignition sources because they can ignite fuel vapors.

At the end of each year, prepare the unit for storage as follows.

1. Drain the fuel from the carburetor and the fuel tank.*
2. Change the engine oil.
3. Clean the entire unit.
4. Charge the battery.

* Fuel System

Fuel can become stale when stored over 30 days. Stale fuel causes acid and gum deposits to form in the fuel system or on essential carburetor parts. To keep fuel fresh, use Briggs & Stratton FRESH START® fuel stabilizer, available as a liquid additive or a drip concentrate cartridge.

There is no need to drain gasoline from the engine if a fuel stabilizer is added according to instructions. Run the engine for 2 minutes to circulate the stabilizer throughout the fuel system. The engine and fuel can then be stored up to 24 months.

If gasoline in the engine has not been treated with a fuel stabilizer, it must be drained into an approved container. Run the engine until it stops from lack of fuel. The use of a fuel stabilizer in the storage container is recommended to maintain freshness.

How to Order Replacement Parts

The replacement parts are shown either on the back pages of this Operator's Manual or in a separate Illustrated Parts List.

Use only factory authorized replacement parts or like parts when making repairs. Do not use attachments or accessories not specifically recommended for this unit. In order to obtain proper replacement parts you must supply the model number of your mower (see nameplate).

Replacement parts, except for the engine, transmission, transaxle or differential, are available from the store where the mower was purchased or a service shop recommended by the store.

Warranty service is available only through Authorized Service Dealers. Locate your nearest dealer in our locator map at www.murray.com.

Replacement parts for the engine, transaxle, or transmission, are available from the manufacturer's authorized service dealer found in the commercial pages of the telephone directory. Also, see the individual engine or transmission warranties to order replacement parts.

When ordering the following information is required:

1. Model Number
2. Serial Number
3. Part Number
4. Quantity

Troubleshooting

Troubleshooting Chart

Problem	Correction
The engine will not start.	<ol style="list-style-type: none"> 1. Follow the steps, "How to Start the Engine" in this book. 2. Electric-Start Models: Clean the battery terminals. Tighten the cables. 3. Check for a loose wire. 4. Drain the fuel tank. Clean the fuel line. Replace the fuel filter. 5. Remove the spark plug(s). Move the throttle to the SLOW position. Turn the ignition key to the ON position. Try to start the engine several times. Install the spark plug. 6. Replace the spark plug.
The engine will not turn over.	<ol style="list-style-type: none"> 1. Follow the steps, "How to Start the Engine" in this book. 2. Electric-Start Models: Check the level of the acid in the battery. If needed, add water. Charge the battery. 3. Replace the fuse. 4. Check the wiring harness for damage or a loose connection. Repair the damaged wire. 5. Electric-Start Models: Replace the solenoid. Recoil-Start Models: Replace the module.
The engine is difficult to start.	<ol style="list-style-type: none"> 1. Replace the spark plug. 2. Replace the fuel filter.
The engine does not run smooth or has a loss of power.	<ol style="list-style-type: none"> 1. Check the oil. 2. Clean the air filter. 3. Clean the air screen. 4. Replace the spark plug. 5. The engine is working too hard. Use a slower ground speed. 6. Replace the fuel filter.
The engine does not run smooth at fast speed.	<ol style="list-style-type: none"> 1. Replace the spark plug. 2. Adjust the throttle control. 3. Clean the air filter. 4. Replace the fuel filter.
The engine stops when the blades are engaged.	<ol style="list-style-type: none"> 1. Check the wiring harness for damage or a loose connection. Repair the damaged wire. 2. Contact your dealer.
On slopes, the engine stops.	<ol style="list-style-type: none"> 1. Mow up and down slopes. Never mow across a slope.
The engine will not idle.	<ol style="list-style-type: none"> 1. Replace the spark plug. 2. Clean the air filter. 3. Adjust the throttle control. 4. Drain the fuel tank. Clean the fuel line. Replace the fuel filter.
A hot engine causes a decrease in power.	<ol style="list-style-type: none"> 1. Clean the air screen. 2. Check the oil. 3. Replace the fuel filter.
Excessive vibration.	<ol style="list-style-type: none"> 1. Replace the blade. 2. Check for loose engine bolts. 3. Decrease the air pressure in the tires. 4. Check for a damaged belt or damaged pulley. Replace the damaged parts.

Troubleshooting Chart Continued

Problem	Correction
The grass does not discharge correctly.	<ol style="list-style-type: none"> 1. Stop the engine. Clean the mower housing. 2. Raise the height of cut. 3. Replace or sharpen the blade(s). 4. Use a slower ground speed. 5. Move the throttle control to the FAST position. 6. Contact your dealer.
The mower housing does not cut level.	<ol style="list-style-type: none"> 1. Check the air pressure in the tires. 2. Adjust the level of the mower housing. 3. Check the front axle. If the front axle does not freely pivot, loosen the axle bolt(s).
The mower blades will not rotate.	<ol style="list-style-type: none"> 1. Check the mower drive belt. Make sure the belt is installed correctly. 2. Replace the mower drive belt.
The unit will not move.	<ol style="list-style-type: none"> 1. Release the automatic drive disconnect (Hydro-Drive Models). 2. Contact your dealer.
Belt noise can be heard.	<ol style="list-style-type: none"> 1. Temporary belt noise does not change the operation of the unit. If belt noise is continuous, check the routing of the belt. Make sure the belt is inside all belt guides. 2. Contact your dealer.
The rear wheels spin over uneven terrain.	<ol style="list-style-type: none"> 1. Check the front axle. If the front axle does not freely pivot, loosen the axle bolt(s).

Warranties

BRIGGS & STRATTON POWER PRODUCTS GROUP, L.L.C. OWNER WARRANTY POLICY

LIMITED WARRANTY

Briggs & Stratton Power Products Group, LLC will repair and/or replace, free of charge, any part(s) of the equipment that is defective in material or workmanship or both. Briggs & Stratton Corporation will repair and/or replace, free of charge, any part(s) of the Briggs and Stratton engine* (if equipped) that is defective in material or workmanship or both. Transportation charges on product submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions stated below. For warranty service, find the nearest Authorized Service Dealer using our dealer locator at www.BriggsandStratton.com or www.Murray.com.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase or to the extent permitted by law. Liability for incidental or consequential damages are excluded to the extent exclusion is permitted by law.

Some states or countries do not allow limitations on how long an implied warranty lasts, and some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

WARRANTY PERIOD

Item	Consumer Use	Commercial Use:
Equipment	2 Years	N/A
Engine*	2 Years	N/A

The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated above. "Consumer use" means personal residential household use by a retail consumer.

"Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once product has experienced commercial use, it shall thereafter be considered as commercial use for purposes of this warranty.

No warranty registration is necessary to obtain warranty on Briggs & Stratton products. Save your proof of purchase receipt. If you do not provide proof of the initial purchase date at the time warranty service is requested, the manufacturing date of the product will be used to determine warranty eligibility.

ABOUT YOUR WARRANTY

We welcome warranty repair and apologize to you for being inconvenienced. Warranty service is available only through servicing dealers authorized by Briggs & Stratton or BSPPG, LLC.

Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. This warranty only covers defects in materials or workmanship. It does not cover damage caused by improper use or abuse, improper maintenance or repair, normal wear and tear, or stale or unapproved fuel.

Improper Use and Abuse - The proper, intended use of this product is described in the Operator's Manual. Using the product in a way not described in the Operator's Manual or using the product after it has been damaged will void your warranty. Warranty is not allowed if the serial number on the product has been removed or the product has been altered or modified in any way, or if the product has evidence of abuse such as impact damage, or water/chemical corrosion damage.

Improper Maintenance or Repair - This product must be maintained according to the procedures and schedules provided in the Operator's Manual, and serviced or repaired using genuine Briggs & Stratton parts. Damage caused by lack of maintenance or use of non-original parts is not covered by warranty.

Normal Wear - Like all mechanical devices, your unit is subject to wear even when properly maintained. This warranty does not cover repairs when normal use has exhausted the life of a part or the equipment. Maintenance and wear items such as filters, belts, cutting blades, and brake pads (engine brake pads are covered) are not covered by warranty due to wear characteristics alone, unless the cause is due to defects in material or workmanship.

Stale Fuel - In order to function correctly, this product requires fresh fuel that conforms to the criteria specified in the Operator's Manual. Damage caused by stale fuel (carburetor leaks, clogged fuel tubes, sticking valves, etc) is not covered by warranty.

* Applies to Briggs and Stratton engines only. Warranty coverage of non-Briggs and Stratton engines is provided by the engine manufacturer.

California, U.S. EPA, and Briggs & Stratton Corporation Emissions Control Warranty Statement Your Warranty Rights And Obligations

January 2011

The California Air Resources Board, U.S. EPA, and Briggs & Stratton (B&S) are pleased to explain the emissions control system warranty on your Model Year 2011–2012 engine/equipment. In California, new small off-road engines and large spark ignited engines less than or equal to 1.0 liter must be designed, built, and equipped to meet the State's stringent anti-smog standards. B&S must warrant the emissions control system on your engine/equipment for the periods of time listed below provided there has been no abuse, neglect, or improper maintenance of your engine or equipment.

Your emissions control system may include parts such as the carburetor or fuel injection system, fuel tank, ignition system, and catalytic converter. Also included may be hoses, belts, connectors, sensors, and other emissions-related assemblies.

Where a warrantable condition exists, B&S will repair your engine/equipment at no cost to you including diagnosis, parts, and labor.

Manufacturer's Warranty Coverage:

Small off-road engines and large spark ignited engines less than or equal to 1.0 liter are warranted for two years. If any emissions-related part on your engine/equipment is defective, the part will be repaired or replaced by B&S.

Owner's Warranty Responsibilities:

- As the engine/equipment owner, you are responsible for the performance of the required maintenance listed in your owner's manual. B&S recommends that you retain all receipts covering maintenance on your engine/equipment, but B&S cannot deny warranty solely for the lack of receipts or your failure to ensure the performance of all scheduled maintenance.
- As the engine/equipment owner, you should however be aware that B&S may deny you warranty coverage if your engine/equipment or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.
- You are responsible for presenting your engine/equipment to a B&S distribution center, servicing dealer, or other equivalent entity, as applicable, as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have any questions regarding your warranty rights and responsibilities, you should contact B&S at (414) 259-5262.

Briggs & Stratton Emissions Control Warranty Provisions

The following are specific provisions relative to your Emissions Control Warranty Coverage. It is in addition to the B&S engine warranty for non-regulated engines found in the Operator's Manual.

1. Warranted Emissions Parts

Coverage under this warranty extends only to the parts listed below (the emissions control systems parts) to the extent these parts were present on the engine purchased.

- Fuel Metering System**
 - Cold start enrichment system (soft choke)
 - Carburetor and internal parts
 - Fuel pump
 - Fuel line, fuel line fittings, clamps
 - Fuel tank, cap and tether
 - Carbon canister
- Air Induction System**
 - Air cleaner
 - Intake manifold
 - Purge and vent line
- Ignition System**
 - Spark plug(s)
 - Magneto ignition system
- Catalyst System**
 - Catalytic converter
 - Exhaust manifold
 - Air injection system or pulse valve
- Miscellaneous Items Used in Above Systems**
 - Vacuum, temperature, position, time sensitive valves and switches
 - Connectors and assemblies

2. Length of Coverage

For a period of two years from date of original purchase, B&S warrants to the original purchaser and each subsequent purchaser that the engine is designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; that it is free from defects in material and workmanship that could cause the failure of a warranted part; and that it is identical in all material respects to the engine described in the manufacturer's application for certification. The warranty period begins on the date the engine is originally purchased.

The warranty on emissions-related parts is as follows:

- Any warranted part that is not scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the warranty period stated above. If any such part fails during the period of warranty coverage, the part will be repaired or replaced by B&S at no charge to the owner. Any such part repaired or replaced under the warranty will be warranted for the remaining warranty period.
- Any warranted part that is scheduled only for regular inspection in the owner's manual supplied, is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.
- Any warranted part that is scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part will be repaired or replaced by B&S at no charge to the owner. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
- Add on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non exempted add on or modified parts by the owner will be grounds for disallowing a warranty claim. The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a non exempted add on or modified part.

3. Consequential Coverage

Coverage shall extend to the failure of any engine components caused by the failure of any warranted emissions parts.

4. Claims and Coverage Exclusions

Warranty claims shall be filed according to the provisions of the B&S engine warranty policy. Warranty coverage does not apply to failures of emissions parts that are not original equipment B&S parts or to parts that fail due to abuse, neglect, or improper maintenance as set forth in the B&S engine warranty policy. B&S is not liable for warranty coverage of failures of emissions parts caused by the use of add-on or modified parts.

Look For Relevant Emissions Durability Period and Air Index Information On Your Small Off-Road Engine Emissions Label

Engines that are certified to meet the California Air Resources Board (CARB) small off-road Emissions Standard must display information regarding the Emissions Durability Period and the Air Index. Briggs & Stratton makes this information available to the consumer on our emissions labels. The engine emissions label will indicate certification information.

The **Emissions Durability Period** describes the number of hours of actual running time for which the engine is certified to be emissions compliant, assuming proper maintenance in accordance with the Operating & Maintenance Instructions. The following categories are used:

Moderate:

Engine is certified to be emissions compliant for 125 hours of actual engine running time.

Intermediate:

Engine is certified to be emissions compliant for 250 hours of actual engine running time.

Extended:

Engine is certified to be emissions compliant for 500 hours of actual engine running time. For example, a typical walk-behind lawn mower is used 20 to 25 hours per year.

Therefore, the **Emissions Durability Period** of an engine with an **intermediate** rating would equate to 10 to 12 years.

Briggs & Stratton engines are certified to meet the United States Environmental Protection Agency (USEPA) Phase 2 emissions standards. For Phase 2 certified engines, the Emissions Compliance Period referred to on the Emissions Compliance label indicates the number of operating hours for which the engine has been shown to meet Federal emissions requirements.

For engines less than 225 cc displacement.

Category C = 125 hours, Category B = 250 hours, Category A = 500 hours

For engines of 225 cc or more displacement.

Category C = 250 hours, Category B = 500 hours, Category A = 1000 hours

Specifications

	2690997	2690998	2690999
Tractor			
Deck Size (inches)	38	38	42
Transmission Type	Gear	Hydro	Hydro
Ground Speed - Fwd/Rev (mph)	5.6 / 3.5	5.6 / 3.5	5.6 / 3.5
Fuel Tank Capacity (gal)	1.4	1.4	1.4
Engine			
Engine Power (hp)	14.5	15.5	15.5
Engine Displacement (cc)	500	500	500
Oil Capacity (oz)	48	48	48
Spark Plug Gap (inches)	0.030	0.030	0.030

Power Rating

The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J1940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-05). Torque values are derived at 3060 RPM; horsepower values are derived at 3600 RPM. Net power values are taken with exhaust and air cleaner installed whereas gross power values are collected without these attachments. Actual gross engine power will be higher than net engine power and is affected by, among other things, ambient operating conditions and engine-to-engine variability. Given the wide array of products on which engines are placed, the gas engine may not develop the rated gross power when used in a given piece of power equipment. This difference is due to a variety of factors including, but not limited to, the variety of engine components (air cleaner, exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions (temperature, humidity, altitude), and engine-to-engine variability. Due to manufacturing and capacity limitations, Briggs & Stratton may substitute an engine of higher rated power for this Series engine.



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